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PHILADELPHIA, SEPTEMBER 28, 1878.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON PROSTATORRHŒA AND STRICTURE OF THE URETHRA.

Delivered at Jefferson Medical College Hospital

BY SAMUEL W. GROSS, M.D.,

Lecturer on Diseases of the Genito-Urinary Apparatus in Jefferson Medical School.

(Reported for the *Medical Times*.)

THIS patient is a married man, and is 27 years of age. Ten years ago he had a very bad attack of gonorrhœa, which lasted three years,—a chronic gleet being established. Lately the man has been married. He comes to us to-day complaining of dribbling of the last few drops of urine, so that he always has to give his penis a good shake before putting it away; of a thick muco-purulent discharge from the urethra when he has to strain at stool, of almost constant priapism, of constipation, great nervousness, occasional palpitation of the heart, a scalding sensation when he passes water, and general sexual debility. He is working at present in a turpentine-manufactory, and thinks that his sexual passions have been greatly increased since he has been there. This is very easily explained by the fact that the turpentine makes the urine preternaturally acrid, and so increases the sensibility of the parts by setting up a constant source of irritation. Before his change in trade he was in the habit of making water frequently; now he only does so two or three times during the day, and then in large quantities.

I propose to-day to examine the man in your presence, and see what is the matter with him. The discharge of the thickish white fluid from the urethra while straining at stool is a characteristic symptom. The man says that this discharge comes out in lumps, or squirts out. After the passage of the urine, he says that he very often has a feeling like that present during erection, only that it is not nearly so pleasant.

I shall introduce this No. 30 bulbous bougie, and see if I can discover any strictures. The meatus is an unusually large one. I find that the patient has a number of strictures, one about an inch behind the meatus, and two stricture-bands in the region of the bulb. I cannot carry my investigations any further to-day, for this one introduction of the instrument has caused a great deal of pain, showing a state of considerable hyperæsthesia of the urethra, and has made the man feel quite sick at the stomach and faint for the time being. In England the surgeons introduce the catheter frequently with the patient standing upright before them, and it is not by any means unusual for patients to fall down in a fainting-fit after the passage of the instrument. Sometimes, when patients come to my office, I introduce the catheter while they are sitting down, and in several instances they have fallen off their chairs in a fainting condition. This is, of course, the result of some peculiar idiosyncrasy on the part of the patient. Indeed, so close is the relation between the mucous membrane of the urethra and the general vaso-motor system that an unwary introduction of the catheter, or sound, has in some rare cases produced epilepsy, and even death.

The man says that he has not had so much discharge within the past month. The bougie has, as you can all see, brought away with it some of this discharge, which evidently comes from the neighborhood of the prostate. The numerous strictures are plainly a result of the gleet, or rather of the long-standing gonorrhœa. I have no doubt that if I could slit up this man's urethra I should find throughout its length well-marked linear injection. The tenderness in the region of the prostate, as developed by the bulbous bougie, is very marked. This local inflammation is due to chronic catarrh of the prostate gland, which means an exaggerated, chronic secretion by the prostatic ducts. We call this condition prostatorrhœa, or abnormal flow of the prostatic fluid. Prostatorrhœa was first described as an independent disease by Professor S. D. Gross some twenty years ago.

Prostatorrhœa is usually induced in young men by ungratified sexual passion, and consists in a gleety discharge from the prostate gland. It is also produced by excessive indulgence, or masturbation. Sufferers from this discharge are very apt to think that they are affected with sper-

matorrhœa. A well-known French author has drawn the distinction between nocturnal and diurnal, or true and false spermatorrhœa. The discharge of sperm which occurs at night is, as a general rule, entirely normal,—simply a natural relief to the over-distended spermatic vessels. Diurnal spermatorrhœa is not at all a discharge from the spermatic vessels, but from the prostate,—a prostatorrhœa. This prostatorrhœa generally occurs after straining at stool: the hardened fæces press upon the prostate gland. It is apt to be kept up by intemperance and riding on horseback or jolting in a wagon over rough roads. Sometimes even the act of walking will bring it on. Masturbation is its most frequent cause. A young man with this complaint reads the notices of quack doctors in the Sunday papers, and gets hold of pamphlets on the "Philosophy of Marriage," "The Evils of Indiscretion," etc., etc., perhaps goes to see some quack about his troubles, who of course does his best to impose upon his victim's fears. People talk about insanity as a result of prostatorrhœa. I have no doubt that young men who do as I have just said may in course of time become insane; but they become insane not from the effects of the prostatorrhœa, but from mental worry and anguish. Prostatitis is a very common affection, and is correspondingly curable. Spermatorrhœa is, on the other hand, one of the rarest of all diseases.

How are you to convince a patient that he is not suffering from spermatorrhœa? for, unless you can gain your patient's confidence, you may as well give up the case altogether. Do it in this way: collect a little of the gleety discharge and put it in the field of your microscope, and let the patient examine it and then compare its appearance with that of the spermatic fluid,—his own sperm, if necessary. The spermatic fluid contains spermatozoa; the prostatic discharge contains the so-called "concentric prostatic calculi." So soon as your patient's mind is relieved, you have already won half the battle. It is not uncommon in this disease for the patient to experience some pain in the prostatic region during the venereal act. This man has not noticed any such pain. His condition is fast becoming one of marked hypochondriasis. He tells me, upon close questioning, that he smokes and chews a great deal.

We come now to the consideration of the cure and treatment of this condition. Of course the success of your treatment will consist largely, if not altogether, in your ability to overcome and put a stop to the chronic inflammation and discharge. If there are one or more strictures present, of course the first thing for you to do is to relieve them, and this can best be done by gradual dilatation, by means of the expanding bougie which I have designed (see *New York Medical Record* for June 15, 1878, pp. 461, 462, 463). Where there is no stricture, but simply a condition of hyperæsthesia of the urethra, the best treatment, beyond all question, is by the persevering introduction of conical steel bougies of gradually increasing sizes. As the morbid sensibility of the part is obtunded, so, *pari passu*, the inflammation and discharge subside. In introducing the conical steel bougie, allow it to fall into the bladder by its own weight, and then remove it at once. Use an instrument of the same size once a day for five or six days, and then gradually increase the calibre of your bougie. If the meatus is unusually small, you will have to slit it up; otherwise, not. Some cases of the disease are obstinate. In these it will be necessary to use astringent local applications. To do this you may take the conical steel bougie and cut a cup-shaped concavity at the convexity of the curve. In this cup you may place some acetate of mercury, or sulphate of copper, or nitrate of silver. Or you may use the *porte-caustique* of Prof. Samuel D. Gross, with some nitrate of silver, with stramonium ointment, or cerate of opium. In using any instrument, be sure to turn it all the way round, so as to bring the caustic in contact with all the parts. If you choose, you may use the catheter-syringe, or any one of the thousand-and-one devices for making local applications. The best method of all those which I have described is that by the *porte-caustique* with the solid nitrate of silver. The more concentrated your solution of the nitrate, the better the results. After applying the caustic, the patient should be kept in bed. The caustic effect will, of course, terminate in suppurative inflammation. There is a great sensation of scalding in passing the urine, and, indeed, very often all the symptoms of acute urethritis; during the course of which the patient must be kept in bed, his diet cut

down, and demulcent drinks administered freely.

Obstinate constipation and dyspepsia are very frequently attendant symptoms of the disorder. You must discover, of course, whether the dyspepsia be acid or alkaline, and treat it accordingly. As regards the constipation, the lower bowel should be kept well open. An occasional purge will do no harm. As a routine medicine the patient may take each morning, before breakfast, f℥vj of Hunyadi János water, or the following prescription, of which the late Dr. Robley Dunglison was the originator, viz :

℞ Magnesii sulphat., ℥j ;
Potassii bitart., ℥j ;
Ferri sulphat., gr. x ;
Aquæ, q. s. ad Oij.

M. S.—A wineglassful every morning before breakfast.

Another very excellent plan is to inject five or six gobletfuls of cold water into the rectum each morning. This at the same time opens the bowels and produces a tonic effect upon the inflamed prostate. The diet should be nutritious, but bland. The patient must eschew coffee, tea, malt and alcoholic liquors, and all greasy and fried substances. For breakfast he may take grits or oatmeal, meat, and bread and butter ; for dinner, plenty of good rare beefsteak or mutton-chop, with potatoes, tomatoes, etc. Supper should be a light meal. As a drink he had better use water.

The patient must avoid all horseback exercise and all riding in carriages, horse- and steam-cars. If he has business to attend to, let him walk, remembering to take his time about it.

If the patient be anæmic, he should be put at once upon a tonic treatment, something like the following, for instance :

℞ Quiniæ sulph., gr. xl ;
Tinct. ferri chl., f℥iv ;
Tinct. nucis vom., f℥ivss ;
Aquæ, q. s. ad f℥ijss.

M. S.—A teaspoonful four times daily, in water through a siphon.

If, on the other hand, there be a decided tendency to plethora, and the venereal appetite be constantly excited, the patient should be put under the influence of depressants, with an occasional purge. An excellent local tonic is a sitz-bath, taken every night before going to bed and every morning immediately after rising. This bath should only be continued three or four minutes at first ; afterwards the man may remain in the water ten or fifteen minutes. As regards the mattress used, it should always be hard, and the patient should be careful to empty his bladder thoroughly before going to bed, and to use only the lightest of coverings. He should also rise every morning at four or five o'clock and make water.

To keep down the venereal appetite, we make use of anaphrodisiacs ; the bromides should be given in large doses. By large doses I mean thirty grains of the bromide of potassium thrice daily. The bromide should not, of course, be given to the anæmic cases. Instead of the bromide we may give a five-grain pill of the monobromide of camphor at bedtime.

If the disease is obstinate there is nothing better than local blistering. With a camel's-hair brush dipped in cantharides and collodion, a couple of lines should be drawn first on one side of the raphé of the perineum and then on the other.

Of course, in these cases it is important that intercourse should be had occasionally. The seminal vessels get filled, and must be relieved. No absolute rule can be laid down with regard to the frequency of intercourse. The patient must always be guided by his feelings after the act. As a general rule, once in two or three weeks is quite enough,—enough, at any rate, until full virility be regained.

In some of these instances there is much functional disease of the heart, palpitations, flushings of the face, etc. etc. There is no better treatment of this condition than digitalis in small and long-continued doses,—digitalin, $\frac{1}{60}$ of a grain, or f℥ss of the infusion, or gtt. vj–x of the tincture thrice daily. This treatment, to do any good, must be continued for two or three months, occasionally for much longer periods.

Locusts.—According to the statements now circulating in the scientific journals, the United States Entomological Commission have found a possible use for those scourges of the West, the locusts. It is affirmed that when their bodies are treated with sulphuric acid, formic acid is produced in abundance. The exact value of formic acid, however, remains an unknown quantity.

ORIGINAL COMMUNICATIONS.

CEREBRAL AND SPINAL ANÆMIA.

BY EDWARD C. MANN, M.D.,

Professor of Histology, New York College of Veterinary Surgeons; Superintendent Sunnyside Medical Retreat, 163d Street, Washington Heights, New York City.

THE occurrence of cerebral and spinal anæmia is becoming so frequent among American women, and is the cause of so much of their ill health and lassitude, that I propose to investigate in this paper its symptoms, causes, morbid anatomy, and treatment, feeling sure that so common and troublesome an affection cannot fail to be of interest to the majority of the profession.

We are applied to for treatment by pale, colorless women, with cold skin, complaining of headache of a limited nature, usually relieved by lying down, and exaggerated by either physical or mental effort. These patients have little muscular power; and we sometimes find symptoms of anæsthesia. The patients all complain of drowsiness. The majority of these patients will be found—when spinal anæmia is present—to have tenderness over one or more points of the vertebral column, which is increased on pressure. The pain developed by such pressure may be either dull or sharp in nature. We may, in rare cases, find tenderness on pressure over the entire spine. Neuralgia is also a very prominent symptom, and may be experienced in the head, face, neck, shoulders, and upper extremities, when the cervical and dorsal regions of the spinal cord are implicated; while the neuralgic pain attacks the pelvis and the lower extremities when the anæmia implicates the lumbar region of the spine. At times we find hyperæsthesia existing, either of the whole or a part of the body, or limited in some cases to the organs of special sense. Occasionally we see convulsive movements and also affections of the larynx and air-passages and the alimentary canal. Some patients with cerebral anæmia give a history of attacks of dizziness and fainting-fits, while others complain of intense irritability and disturbances of sensibility. These latter patients are very sensitive to light and sound, and have flashes before the eyes. They are very apathetic, and they have much mental lassitude. They are inclined, as I have said, to sleep, but their sleep is of a disturbed character, and they are annoyed by frightful dreams. In nearly every case of cerebral anæmia, and in some cases of spinal anæmia, we meet with disturbances of the mind, ranging from slight hysterical symptoms to acute maniacal paroxysms. We also find disturbances of the digestive organs, of the genito-urinary organs, and of the heart and circulation. Also we find in cases of spinal anæmia that many visceral diseases are simulated by this affection. The neuralgia before alluded to has the peculiarity of shifting its seat quite suddenly from one place to another, and this is one of the principal diagnostic features of spinal anæmia. These neuralgic pains are increased by physical or mental effort, and relieved by lying down, when the contracted and bloodless cerebral and spinal vessels become filled with blood. As a rule, we do not find that our patients complain of pain in the spine. We more generally find that a sense of weight and heat and pain in the spine is due to spinal congestion, and not to anæmia. We often have complaints of nausea and vomiting. We sometimes find, in cases of spinal anæmia, painless and prolonged muscular contractions. We may have weakness, but no paralysis. The affections of various parts of the body and the viscera in cerebral and spinal anæmia are due probably to the fact of the sympathetic system of nerves being affected. The system of nerves, as it is well known, is closely interwoven with the spinal system, each spinal nerve receiving branches from and transmitting branches to a neighboring sympathetic ganglion. The sympathetic system of nerves regulates the shortening and lengthening of all organic muscular fibres, it controls the contraction and dilatation of the blood-vessels, and consequently the amount of blood supplied to different parts, and the rapidity of its flow through them, and in this way in a certain degree it regulates the nutrition and functional activity of the organs and their temperature. It is also probable that the sympathetic system exerts a direct influence over the glandular organs of the body. This affords a rational explanation of nutritive and functional difficulties occurring in the course of cerebral and spinal anæmia,—functions of different parts and organs being impaired, exalted, or perverted.

Spinal anæmia is a disease of capillary contraction and bloodlessness of the spine. It is a functional disease, and there are, so

far as present knowledge exists, no morbid structural changes. In making a diagnosis between anæmia and other morbid states of the spinal cord, such as spinal meningitis and spinal congestion, we must bear in mind that in the latter diseases the spine is not tender on pressure. If there is disease of the vertebræ, we have spinal tenderness; but such disease is usually found under the age of 15 or 20 years. Again, if there should chance in spinal anæmia to be an apparent projection of the tender vertebræ, which would lead us to suspect caries of the vertebræ, we shall find that it is *not* a real projection, displacement, or curvature, but merely a *simulation*, depending on puffing of the ligaments and investments of the spine. If there were diseased vertebræ, we should find paralysis of the lower limbs in all probability, while we almost never find this in spinal anæmia. Another diagnostic point of importance is the fact that spinal anæmia is relieved by lying down, while in spinal congestion, meningitis, and myelitis the symptoms are all worse after a night's sleep. Another means of diagnosis, as Prof. Wm. A. Hammond has pointed out, is found in the action of hypodermic injections of strychnia, which relieves spinal anæmia, while it intensifies the symptoms of congestion, meningitis, and myelitis. As the same author has remarked, the contractions in anæmia are painless, while in myelitis they are accompanied with great suffering.

Cerebral anæmia is a decrease in the amount of blood circulating through the brain in a given space of time, the dilating and contracting power of the blood-vessels so altering their calibre and thus permitting a diminution in the flow of blood. During sleep there is a period of temperate quiescence of the brain, during which time it is pale and bloodless.

Alterations in the vascularity of the brain are due partly to the presence of the cerebro-spinal fluid, the brain becoming more vascular as the amount of the fluid is diminished, and as the vascularity decreases the bulk of the fluid increases. As I have stated elsewhere, the amount of blood going to the brain is a fifth of the whole bulk of the blood: a reduction, therefore, in the usual supply of blood will soon become apparent in the cerebral circulation. As an illustration of this may be mentioned constant drains on the system, such as morbid growths, imperfect nutrition, and dyspepsia. Spanæmia is a cause of cerebral anæmia, arising as it does from malarial poisoning, lithiasis, and prolonged administration of certain drugs. Cerebral anæmia may be produced by unfilled vessels, heart disease, organic disease of the cerebral vessels, venous stasis, apoplexy, vaso-motor disturbances of the cerebral vessels.

The principal causes of anæmia of the brain are, as I have remarked above, those that diminish the entire amount of blood in the brain, such as hemorrhage, exudation, and fevers; the congestion of other organs of the body with blood; the compression or obstruction of arteries supplying the brain; mental excitement, which causes innervation or spasmodic contraction of arteries; diminution of the space in the skull by exudations, extravasations, or tumors; and leucocythæmia. The causes of spinal anæmia may arise from congenital predisposition, and include everything which tends to induce a nervous temperament and all things that tend to exhaust vital power. Cerebral anæmia may come on quite suddenly and severely, or it may come on slowly and be less severe. In cases of the former description, patients are attacked with sudden dizziness, become insensible to impressions, and cannot move. They faint away with slight spasmodic movements. When the cerebral anæmia comes on slowly, we find symptoms of irritation, and subsequently paralysis. When the anæmia does not attain a high grade, only the symptoms of cerebral irritation are noticeable. Sometimes there are great disturbances of sensibility. Such patients complain of much headache in the forehead or occiput, and sensitiveness to light and sound, so that even daylight admitted into the room causes them great discomfort, and slight sounds are insupportable. These patients have flashes before their eyes, noises in the ears, and dizziness. We see this in women with metrorrhagia and other losses of blood. In the case of cerebral anæmia in children, we find that motor disturbances are most noticeable.

At times the symptoms of cerebral anæmia may be almost wholly confined to the mental functions. The mental action in cerebral anæmia, when disturbed, is quick, irritable, and tending to convulsive irregularities. The state of anæmia, if carried beyond a certain point, will destroy functional excitability and the activity of the

brain. In cerebral anæmia, when the mental functions are affected, we see a pale face, cool head, and weak pulse, the cerebral organs being in a state of irritable weakness, easily excited by action, the action, however, being powerless and irregular. Some of the most violent maniacal attacks I have ever seen were in cases of insanity, when the pathological state was one of anæmia of the brain. Examination of the heart in these cases reveals systolic and diastolic bellows-murmurs heard most plainly at the base of the heart, and also venous murmurs.

The prognosis in cerebral anæmia and spinal anæmia is generally good, if no organic disease exists; but if anæmia of the brain depends upon diseased vessels or organic disease of the heart, the prognosis is bad. Cerebral anæmia, if not checked, passes on to melancholia and dementia, ending in psychical torpidity and intellectual decay. The dementia resulting from cerebral anæmia begins in one of two ways, either gradually and at first by imperceptible encroachments, or by maniacal excitement. Its acme is a mental state of profound stupidity. In cases of dementia the amount of cerebral atrophy which ensues may be calculated upon by the enfeeblement of mental power. We certainly have some atrophy, and this amount will generally be found to correspond with the degree of mental decadence present.

Treatment. — The treatment must be psychical and physical. With regard to the first, as soon as the system is somewhat improved, change of scene, travelling, and cheerful society are to be recommended, while the physical or medicinal treatment consists in primarily toning up the system and improving both the quantity and the quality of blood circulating in the brain and spinal cord. If our patients are much debilitated, we must keep them in a recumbent position and obtain rest for body and mind. All emotional disturbances must be carefully removed. Iron, in combination with the chloride or the phosphide of arsenic, or arsenious acid, may be given, and alcohol must be freely administered. The constant galvanic current is also a valuable remedy. To lay down a general plan of treatment for cerebral anæmia would include the administration of stimulants, tonics, and plenty of milk, eggs, and beef. Cod-liver oil with phosphorus is also indicated.

In cases of spinal anæmia and irritation, the first great means of cure reside in the judicious employment of counter-irritation to the affected portion of the spine; and I have found the compound mustard liniment, made up with fresh oil of mustard, so that the liniment possesses a strong, pungent odor, applied on flannel or cotton batting to the affected region of the spine, and the whole covered with oil-silk, the most efficacious method of counter-irritation, and have obtained excellent results from its use. Besides putting patients suffering from spinal anæmia on a full nourishing diet, I am in the habit of prescribing stimulants in liberal doses. Old pure port wine is very good when it agrees with the stomach, and, when it does not, brandy or whisky, both of which have the advantage of possessing more alcohol. I also obtain the most excellent results from the use of the constant current of electricity to the spine, applying the current twice a day for a few minutes at each sitting. Next in importance I rank phosphorus, which is best administered in cod-liver oil in doses of one-tenth to one-fiftieth of a grain after meals. The oil acts on the nutrition of the central nervous system, which it tends to preserve in its organic integrity, while the phosphorus is new food and builds up the exhausted nervous system, having a special stimulating power. A combination of strychnia, quinine, and tr. ferri muriat., with glycerin as a menstruum, has also given me good results, as has Dr. Hammond's pill of phosphide of zinc and extract of nux vomica. By judicious treatment and the removal of all causes calculated to keep up cerebral and spinal anæmia, we shall obtain the most gratifying results. Our patient will improve in personal appearance and weight, the spinal tenderness and the attendant neuralgic pains will disappear, all the symptoms will decrease in intensity and finally disappear, and a permanent cure will be obtained, to the satisfaction alike of the physician and the patient.

COMBINATION OF THE ALKALOIDS OF CINCHONIA WITH MORPHIA.

BY P. G. SKILLERN.

AS medical science progresses, the administration of remedies becomes more apparent and advantageous to the

profession. Especially is the combining process to be recommended; for by this means certain effects are obtained which could not be arrived at in any other way.

Having noticed various paragraphs in the different journals alluding to the combination of quinia and morphia in malarial fevers, and having observed other important advantages of their combined effects, I feel no hesitancy in reporting them.

Dr. Lewis, of Tennessee, noticed that patients who received morphia with quinia recovered with greater rapidity than those who did not take the opiate, and that a ten-grain dose of quinia combined with a third of a grain of morphia would break up an intermittent attack with far greater certainty than would twenty grains of quinia alone. He also records four hundred and sixty-one cases of malarial fever. Three hundred and seventeen of these received morphia with quinia, and the average number of chills occurring subsequent to date of attendance was $1\frac{1}{3}\frac{2}{1}$. The remaining one hundred and forty-four cases took quinia without morphia, their average being $3\frac{1}{1}\frac{3}{4}$, showing undeniable evidence of the value of uniting the two drugs. I find in the *Medical Times* a case in which a chill was arrested by morphia alone.

A few illustrative cases of the combined treatment may not be amiss.

Case I. was a double quotidian, in which quinia was used for two days, in the proper doses and at the proper time. It gave considerable relief, but did not give entire exemption from the paroxysms. The next day, alternate flushes of heat and chilly sensations presenting themselves, and the patient complaining of a peculiar painful sensation in the lower limbs, cinchonia and opium were prescribed,*—the cinchonia in the same doses and at the same time that the quinia had been given. The patient dozed quietly for a few hours, and awoke, free from fever and pain, just about the middle of the aborted paroxysm.

The following day the fever assumed the quotidian type. The powders were given as had been previously done, beginning a few hours before the expected paroxysm. This cut short entirely the attack.

Case II.—Cinchonia was prescribed, the patient protesting against it, declaring that it always caused such disagreeable symptoms, such as dizziness, dull headache, flushed face, etc. Ten grains having been taken, all the above symptoms appeared. It was then combined with opium, and had the desired effect, without causing any of the unpleasant troubles.

Case III.—Cinchonia administered in small doses could not be retained. It was given in solution, in cache de pain, and in powder, but as often produced vomiting. Upon being combined with opium, all the nauseating symptoms disappeared.

Case IV.—Quinia gave rise each time to an intense scarlatinoid rash after three different doses. On addition of morphia, no such eruption was noticeable.

In conclusion, I think it may be claimed that:

1. By a combination of the cinchonia alkaloids with opium, a much better effect is obtained; a paroxysm being aborted with much more certainty, and a much earlier and more complete cure insured.

2. Only half the amount of quinia or cinchonia is required.

3. It relieves any painful sensations which might be associated with periodic affections.

4. Exemption from certain disagreeable effects upon the brain,—headache, tinnitus aurium, etc.

5. It enables the stomach to retain quinia much more readily.

6. Large and continuous doses of quinia or cinchonia may be given without producing cinchonism, if combined with morphia.

* In powder, the alkaloid cinchonia being used, and not the salts of cinchonia.

CANNABIS INDICA IN THE TREATMENT OF EPILEPSY.

BY WHARTON SINKLER, M.D.,

Attending Physician to the Infirmary for Nervous Diseases, Philadelphia.

INDIAN hemp has been known as a remedy in migraine for several years, and it was especially recommended by Dr. Russell Reynolds and the late Dr. Anstie.† These writers advised the use of the preparation during an attack of sick-headache, and found it of value. In 1872, Dr. Richard Green published in *The Practitioner* an article on the continued use of cannabis indica in migrain, and reports six cases in which the attacks were either lessened in severity or were checked altogether by doses of one-third to one-half grain of the alcoholic extract given twice a day. Dr. E. C. Seguin, in a paper read before the

† Neuralgia and Diseases that resemble it, p. 240.

New York Academy of Medicine in November, 1877, speaks of having followed Dr. Green's plan with great success.

Having myself seen several cases of migraine in which the continued use of Indian hemp had proved of decided benefit, it occurred to me that the same drug should also be useful in epilepsy, a disease which is so closely allied to migraine. This relationship between the two diseases is spoken of by Anstie,* who remarks on "the close connection between the predisposition to migraine and the predisposition to epilepsy," and further on he says, "it is difficult to avoid the inference that both the epileptic and the neuralgic affections of this critical period [*i.e.*, the period of puberty] are the expression of a morbid condition of the medulla oblongata."

I determined, therefore, to test the medicine at the earliest opportunity; and the following case was the first suitable one that came to me:

Joshua C., æt. 10 years, applied for treatment at the Infirmary for Nervous Diseases, November 5, 1877. He is the second of four children: the eldest is dead, but the others are healthy. His parents enjoy good health, except that the mother often has headaches. He had no fits in infancy, and was always strong and well, having had no sickness except measles. He was always an active, ambitious child, and was bright at school. His mother says, however, that his teacher was strict and exacting with him. In April, 1877, he was bitten by a dog, but the wound was cauterized, and no effects followed the bite. In June of the same year he had his first attack: his parents describe it as being like a faint, and lasting about five minutes. The only cause which they could assign was that he had been playing in the sun and had been bringing home heavy loads of wood. Following the first attack, he had one or two every day for the next two months. At this time he had a convulsive seizure. The movements were confined principally to the right side, including the right side of the face, and foam and blood came from his mouth.

After the beginning of the severe attacks the lesser ones ceased, and now the fits occurred chiefly at night. He had four or five attacks every night, at pretty regular intervals of about two hours. Although he had no attacks during the day, he became vicious and savage and lost his memory and intelligence.

He was treated with bromide of potassium and tr. ferri chlor., but these medicines only modified the attacks: as soon as the bromide was stopped the attacks became more severe than ever.

* Op. cit., p. 156.

Present state.—He is anæmic and poorly nourished, and has a functional cardiac murmur. There is no phimosis. An ophthalmoscopic examination reveals haziness of both discs and considerable tortuosity of the veins, which are somewhat dilated. Ordered potassium bromide gr. x t. d.

January 18.—Patient continues to have many attacks. He has taken but little bromide, the original prescription two months ago never having been renewed. Ordered bromide gr. xv t. d.

March 6.—For about two weeks while taking sixty grains of bromide a day he was better, but lately he has relapsed. His mother has been giving him about one hundred and twenty-eight grains daily, on her own responsibility, with no effect on the attacks. Ordered potassii bromid. gr. xxx, with ext. ergot. fld. gtt. xx t. d.

April 3.—He has one attack daily and three every night. Sodium bromide was substituted for the potassium salt.

June 5.—The patient is worse. "The bromide makes him stupid," his mother thinks. He has from three to seven attacks at night, and never escapes them for one night. He is very savage, and is inclined to attack people; does not hesitate to throw large stones at them with his whole force. The bromide was stopped, and zinci oxid. gr. ii t. d. given.

June 19.—He has had but three attacks since his last visit. They were less violent. He is not as stupid. Increase the zinc to gr. viii daily.

June 26.—The attacks have again increased in frequency; there has been one every night since the last note, and, in addition, one each day for the past three days. I now discontinued the zinc, and ordered ext. cannabis indicæ gr. ½ t. d.

July 17.—He had attacks daily for one week after his last visit, but for the past two weeks he has had none of any kind. His temper has changed greatly for the better.

August 7.—It is now five weeks since he has had a fit. His mental and moral condition has improved wonderfully. He is not at all irritable, and reads and spells readily. At one time he seemed to have forgotten all that he had previously learned.

September 16.—I saw the patient to-day, and he has continued free from attacks. It is, therefore, almost three months since he has had a fit of any kind. He has taken none of his medicine for ten days, but I ordered it begun again.

Of course it may be said that the case has not been under observation long enough to make the ultimate result certain; but there is no question of the patient's improvement while taking the cannabis, and considering the severity of the case the gain seems so remarkable that I think it will warrant a further trial of the drug.

I have had the opportunity of using the remedy in but two other cases of epilepsy. Of these, one did not return after the first visit. In the other there has not been sufficient time to give the drug a fair trial. The case is that of a young woman of nineteen, who has had for seven years four or five fits a week. She suffers from great mental depression with a suicidal tendency. Under the use of a quarter-grain of cannabis the fits have diminished in severity, but not in frequency, and the desire to commit suicide has disappeared. I am pushing the dose, and do not think we can judge of its effects until the physiological action of the drug is reached.

I have not been able to find any reference to the use of Indian hemp in epilepsy, and I have reported this case with the hope that it will suggest the trial of a remedy which may prove capable of relieving certain cases of a disease which is always most difficult of management by the usual means.

NOTES OF HOSPITAL PRACTICE.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC OF DR. FRANCIS DELAFIELD,

Adjunct Professor of Pathology and Practical Medicine.

(Reported for the *Philadelphia Medical Times.*)

HYDATIDS OF THE OMENTUM.

GENTLEMEN,—The patient before you is a German, 46 years of age, who is a tailor by occupation, and gives the following history of his trouble. He enjoyed good health up to three years ago, but since that time has not been well. He says that he first noticed that he was getting larger about the abdomen, and at the same time began to have more or less pain around the lower border of the chest, and affecting both sides about equally. When I first inquired if there had been any time since the enlargement first commenced when it disappeared altogether, I understood him to say that once, while in a hospital, fluid was drawn from his abdomen, but that it returned in about two weeks after he went back to his home. When, however, I asked him how often he had been tapped, he stated emphatically that he had never been tapped at all, and that the abdominal distention subsided either spontaneously or as the result of the medicines he took while in the hospital. He furthermore states that he has been about as large as he is at present for the last four weeks, and that this is not the first time that his abdomen has been swollen to the same size. His feet have never been swollen, but at times he has complained of a prickling sensation, as though produced by the points of pins or needles, upon the outer surface of the thighs.

He says that he is able to eat comparatively heartily, and that he has never been troubled with vomiting or indigestion. He suffers somewhat, however, from shortness of breath. If his own statement in regard to the matter is to be accepted, he has never been much of a drinking man, and is only accustomed to taking a couple of glasses or so of beer a day,—never more than four. He never drinks "schnapps," the taste of which he appears to dislike, and never gets intoxicated.

You have now heard the history. Here is a man who was well up to three years ago, but at that time noticed that his abdomen was swollen. This condition has continued ever since, though its size would seem to have varied very considerably at different periods. When the distention is marked, it causes him a good deal of discomfort, but he has never had headache, vomiting, or swelling of the feet. He suffers considerably from dyspnœa; but this is not greater than can be accounted for by the swollen condition of the abdomen. He says he drinks only moderately of beer, and you observe that the color of his face and his general appearance are indicative of a pretty fair state of health. From the above history we naturally infer that the patient is suffering from ascites, and the most probable explanation of this condition would seem to be cirrhosis of the liver.

The next step is to proceed to a physical exploration, and find out whether the signs thus revealed will corroborate such a supposition.

In the first place, you notice that the man still has a good deal of fat, and, as has been previously remarked, is certainly unusually well nourished for one who has been suffering in the way we suppose for three years. On making palpation in the appropriate manner, however, I do not succeed in getting any wave of fluid, as I expected. The abdomen is very large, and is spherical in outline, and when percussion is made over the right half of it dulness

is found extending from the umbilicus to a point about five inches distant from it. There we get tympanitic resonance, and this extends about five inches farther down, when complete flatness again commences. While the patient is thus lying on the back, we find it necessary to elevate his head very considerably, on account of the annoying dyspnœa which occurs when he is in this position. Commencing again at the umbilicus and percussing over the left side of the abdomen, we ascertain the fact that there is uninterrupted dulness all the way down to the lumbar region. The same dulness is also found in part below the umbilicus, so that, as you observe, we get it over the entire abdomen, with the exception of the limited area upon the right side already alluded to. This, of course, shows that this space is the only part where the intestines lie close to the abdominal wall. Although making palpation with the greatest possible care, I am able to feel nothing whatever through the latter, which is very thick indeed in this patient.

The results of the physical examination, you see, do not, therefore, correspond with the probable diagnosis conjectured from the account which the man gave of himself. The history certainly seemed to be a pretty clear one of cirrhosis of the liver with ascites,—the only thing militating against such a supposition being the fact that he was decidedly better nourished than is usually found to be the case with such patients. But instead of the sensation of fluid, such as is met with in ascites, we felt that of a mass of somewhat greater consistence, and instead of percussion dulness on both sides of the abdomen, with the tympanitic resonance in the centre (produced by the intestines floating on top of the fluid), as is ordinarily found in ascites, we discovered the condition previously described.

How, then, are the physical signs found in this case to be interpreted? There are two conditions which might account for the phenomena here observed. In the first place, we might really have ascites, but with the fluid so confined that it could not move freely about the abdominal cavity. During the last three years the patient may have had an attack of peritonitis, and from this adhesions may have formed which now shut up the fluid in circumscribed spaces. This might possibly be the case; but I do not think it at all probable that it is the condition here present. The other possibility is, the existence of some sort of a tumor within the abdominal cavity. This could scarcely be a very solid and hard mass, for if this were the case I am certain that its presence could easily be detected when palpation is made, notwithstanding the extreme thickness of the abdominal walls. I do not think, therefore, that we have here any form of solid tumor.

But we might have some kind of cyst. If this were a single large cyst, we would get a wave such as is obtained in ordinary ascites; and this is therefore to be excluded here. But if, instead of this, there were a number of cysts of small size, the wave would be absent, and we would have just about the physical signs presented in this case. Now, it is possible for a man to have such little cysts as this in his abdomen as the result of the presence of a certain parasite there, and this, it seems to me, is the condition that will most satisfactorily account for all the phenomena presented by the patient before us. I am of the opinion, therefore, that we have here a collection of hydatids, and in the sacs, if really present, there would, of course, be found the *echinococci*.

Hydatids are so rarely met with in the United States that we are not ordinarily on the lookout for them here. But in Germany, as is well known, they are much more common. In this connection it is well to bear in mind that our patient is a native of Germany, and that, as he informs me, he remained in Germany until he was sixteen years of age, and also that he has associated principally with Germans since he has been living in this country. From the physical signs presented by the abdomen here, I should say that it is altogether probable that the hydatids are connected with the omentum.

You will understand that the diagnosis in this case is not a positive one, but it could be rendered much more certain if tapping were resorted to. The abdomen has now become so distended as to give rise to no little inconvenience and discomfort, and I think it would therefore be entirely proper to resort to the aspirator here. Supposing that hydatids were present, the fluid drawn off might be either clear or turbid. If it were like clear water, no coagulation would take place on treating it with heat and nitric acid, and crystals of common salt would be deposited if

it were evaporated. In case it were turbid, the characteristic hooklets of *echinococci* would be discovered by the microscope, and we should infer that some of the hydatids at least had become destroyed.

TUBERCULAR PNEUMONIA.

The next patient whom I shall introduce to you is 50 years of age, and states that he has been confined to the house, and generally to bed, for the last three weeks. He is employed in a carriage-factory, and was able to attend to his work as usual quite up to the time of this attack. He says that he quit work one Saturday night feeling as well as usual, but that on Sunday morning he found that he had lost his appetite, that he felt very weak, and that he had a pain in his back and chest, together with soreness in all his bones, as he expresses it. He had had a slight cough for some time before, but now he began to cough more, and to have some shortness of breath. The cough was accompanied by expectoration, which was whitish or yellowish, but was never discolored with blood. He sometimes felt chilly and sometimes warm; but he does not think he really had any fever, although he had a great desire for cold drinks, either water or milk. His feet were never swollen, and he never had any nausea or vomiting. He says that he has lost a good deal of flesh, and that he is still very weak, and greatly troubled with dyspnœa on making any exertion. He also has some cough still, but this does not seem to be very annoying.

Here, you see, is the history of an acute attack, characterized by debility, cough, expectoration, dyspnœa, and pain about the back and thorax, which the patient does not locate with any distinctness. He is not aware of having had any fever; so that the temperature could not have been very high, though there can be little doubt that there was a certain amount of febrile action during the attack. At present the man looks very pale and somewhat emaciated, and his pulse is quite feeble and rapid. The history, you observe, is not at all a definite one; but yet it is sufficiently so, I think, to warrant us in making out a probable diagnosis, and I should be glad to have this suggested by some one of the class.

The first suggestion that I hear is pneumonia, and the second pleurisy. The latter is the affection to which I refer,—pleurisy with effusion. Now let us see if a physical exploration will confirm this diagnosis. If pleurisy were present, we should undoubtedly get dulness on percussion over the lower part of the chest on one side; but, instead of this, I find that there is normal resonance over the lower part of the chest on both sides, while extending *upwards*, from a point on a level with the inferior angle of the scapula, on the right side, behind there is dulness. In front the resonance is everywhere good on both sides. The respiration and vocal resonance are also natural on both sides in front, and the heart is beating in a perfectly regular manner. On auscultation behind, however, I get bronchial breathing at a point corresponding with the middle of the inner border of the scapula on the right side. At this point there is also exaggerated vocal resonance, the sound of the voice being abnormally intensified and raised in pitch. To recapitulate, then: In front there is nothing to attract attention on either side of the chest; behind, the left lung is apparently perfectly normal in every respect; but on the right side, while there is normal resonance and respiration below the angle of the scapula, extending upwards from that point we find dulness, though not absolute flatness, all over the lung. The breathing is not so distinct here as in the corresponding portion of the left lung, while the voice is louder; and we also get an occasional subcrepitant râle in this part.

You observe, therefore, that we are obliged to give up the idea of pleurisy entirely; and the diagnosis at which I have now arrived is that of tubercular pneumonia. This is a form of pulmonary phthisis which is not at all common, and which is characterized by the more or less rapid filling up of the air-vesicles of a certain portion of one or both lungs with a deposit of tubercular origin. In this case the upper part of the lower lobe of the right lung has become thus affected. The portion of lung-tissue implicated is consolidated; but the attack producing this result, you understand, is very different indeed from an ordinary acute pneumonia. The symptoms described here, as we have seen, do not at all correspond with the latter: though, as I said before, it is quite a rare form of disease, yet the fact that this tubercular pneumonia does occa-

sionally thus occur, rapidly filling up the air vesicles, as in this case, should lead us to be on the watch for it, and recognize it if we should happen to meet with it in practice.

Such being our diagnosis here, what is the prognosis? This is somewhat uncertain, although probably good. A portion of the right lung has now been consolidated for three weeks, and there is as yet no attempt whatever at resolution. The prognosis depends simply on what changes are going to occur as the result of this. The most favorable termination that we could expect would be a gradual absorption of the inflammatory products now choking up the air-cells, and the return of a portion of the affected lung-tissue to its normal condition. If this were the case, the remaining part would be converted into fibrous tissue, and then the patient would get well. If such a desirable result should occur, the man would be quite unaware that a portion of his right lung had lost its natural character and was now composed of this fibrous structure.

Instead of this altogether favorable termination, however, it is possible that a part of the affected lung may become softened, and, its tissue breaking down, a number of small cavities thus be formed. If this is the case, these cavities will undoubtedly communicate with the bronchial tubes; and, as a result, there will be a considerable amount of chronic bronchitis. There will still be dulness on percussion, and the man will continue to lose flesh and to feel weak and miserable. But this condition, also, might eventually result in a favorable issue; for the cavities might become surrounded with fibrous tissue, and the process of waste having thus been arrested, the patient would have a chance to get well. On the other hand, the cavities might become extended by the continued breaking down of the lung-structure, and the patient at last die of exhaustion.

Finally, the disease might spread very gradually, involving more and more of the substance of the lung, and the case run the ordinary course of chronic phthisis.

The treatment here will consist of a supporting regimen and the administration of such tonics as iron and quinine. In this case persistent counter-irritation is of the greatest importance, and the best form of it for our patient will probably be the application of the tincture of iodine, which should be painted on the chest every day or so, or sufficiently often to keep up a little soreness of the skin. The man should be encouraged to walk out in the open air as much as possible (even though he feels weak and gets short of breath); he should have the best food that he can obtain; and, in short, should be surrounded by the most advantageous hygienic influences.

MYELITIS AFFECTING THE GRAY MATTER OF THE CORD.

Our last patient to-day is a young man, 26 years of age. Three years ago, he says, he began to have a burning sensation under his arms and extending around the chest, and this has continued up to the present time; being now more annoying than it was at first, he thinks. As he describes it, the area in which this sensation is felt seems to constitute a band about five inches in width, extending around the body. It is apt to be more severe at night, and sometimes flashes upon him very suddenly at that time. This is the only symptom that he has had until recently; but about four weeks ago he noticed that both the upper and the lower extremity on the right side were weaker than natural, and a fortnight since he began to be troubled with dribbling of urine. He experiences some pain under the right knee and about the right wrist, and when he walks is obliged to drag the limb on that side on account of its weakness. The grip of the right hand is not so strong as that of the left, and I find that sensation is also somewhat impaired in the right arm, though not, apparently, in the right leg. His eyesight is unimpaired.

In this history I wish you to notice particularly the peculiar burning sensation, describing a sort of circle around the thorax and seeming to increase in severity, and the fact that after a very considerable interval this has been followed by slight loss of power, diminished sensation, and trouble with the bladder. These symptoms, thus succeeding one another in the way that they have done here, strongly indicate the probability of some real lesion of the spinal cord, and I should be afraid, from what the patient tells us, that this had already effected certain changes in its structure. To be more precise, I should say that the symptoms described depend,

in all probability, upon an inflammatory process which has now been going on for a considerable time in the gray matter of the cord. In my own experience I have seen a number of individuals suffering from this condition, in which the affection commenced with the same symptoms which have been observed here; and hence I should be inclined to attach considerable importance to them. Apparently, the lesion is now extending for some distance along the cord, and if this is really the case we may expect the patient to gradually become worse. The bladder will become more affected, there will be increasing pain in the arms and legs, and contractures will also take place in the limbs. On the other hand, however, I may be mistaken in supposing that these symptoms depend on a lesion already considerably advanced; for they may in reality possibly be due to some temporary condition which in time will be relieved.

Our treatment here will be as empirical as the diagnosis, and will consist principally of strychnia, the dose being gradually increased from one-thirtieth to one-tenth of a grain.

TRANSLATIONS.

COTO BARK: ITS CHARACTER AND PROPERTIES.—Fronmüller (*Wien. Med. Presse*, 1878, p. 932; from *Allg. Med. Central Zeitung*) speaks of this new drug derived, like jaborandi, from the forests of Brazil. The nature of the tree from which it is derived is as yet unknown. As found for sale, it consists of irregular pieces, flat or slightly curved, two to three metres in length and eight to fourteen millimetres in thickness. The color is brownish red; the odor aromatic; the taste acrid, somewhat bitter, neither slimy nor astringent. Wittstein found as its chief constituents an ethereal oil, a volatile alkaloid like propylamin or trimethylamin, smelling like herrings, and soft and hard resins. According to Jobst, coto bark contains some fifteen per cent. of a crystallizable substance called cotoin, derived from ethereal maceration, and having the composition $C_{21}H_{20}O_6$. It crystallizes from water in light pale-yellow four-sided prisms; from alcohol in larger ones of a sulphur yellow. The taste is biting, reaction neutral. It dissolves slightly in cold water, easily in hot water. Other specimens of coto bark afforded a different substance, crystallizing in yellow scales, wanting in the bitter taste of cotoin, and less soluble. Jobst called this paracotoin. Unfortunately, a solution suitable for injection has not yet been obtained. Coto was first employed clinically (in Germany) by Dr. Gietel in Munich. He used both the powdered bark and the tincture, one part of bark to nine of 85 per cent. alcohol. Gietel concluded that coto is a specific in diarrhœa. Burkart and Riecker, experimenting also with cotoin, came to the same conclusion as Gietel. Since February, 1877, Fronmüller himself employed coto in some two hundred cases of various diseases, of which ninety-three suffered with colliquative diarrhœa, and ninety-one from sweating of the same grave character. Of the various preparations employed, tinctura cotonis was used in one hundred and nine cases in the dose of about one hundred drops per day on an average. In twenty-four cases cotoin was used in the dose of 0.1 to 0.3 decigramme several times a day in powder. In five cases paracotoin was administered in somewhat larger doses; in five cases soft coto resin to the amount of 0.12 to 0.6 decigramme per day in pill form. The medicine was usually directed against the excessive diarrhœa or sweating; in a few instances against the loss of appetite. In ninety-two cases of colliquative diarrhœa occurring in typhoid fever and tuberculosis, fifty were entirely relieved, twenty-six were improved, and nine remained unaffected. In some cases the diarrhœa relapsed, but was again checked. In most cases, however, good stools were soon obtained. The best results were gained by large doses. The tinctura cotonis was given in water, and taken without difficulty. In a few cases the patient complained of burning and tickling in the throat; this appeared due to some want of care in preparation. Coto has the advantage over other similar remedies used in diarrhœa, that it *improves* the appetite. A medium dose of the tincture is fifty drops, thrice daily, given on sugar or in water. Fronmüller also used coto tincture in ninety-one cases of profuse sweating (in phthisis, etc.). In thirty-four cases the result was favorable; in thirty-six partly so; in twenty-one cases it was used

without effect. The influence only lasts over night; but coto is a good stomachic. Cotoin and paracotoin have the same effect in doses of .15 centigramme. X.

Case of Hæmophilia Neonatorum.—Eppinger, of Prague, reports the following case (*Wien. Med. Presse*, 1878, Nos. 25 and 27). The infant at birth weighed 3.06 kilogrammes. He suffered immediately after with general desquamation of the epidermis and profuse diarrhœa. His condition was forlorn: he showed bluish spots over the dorsal region. On the 10th of May, when the infant was one week old, there was bleeding from the navel, the mucous membrane of the mouth showed a bloody stain, and the hard palate ecchymoses. Later the tongue displayed successive crops of ecchymoses, so that it looked like a bloody sponge. Percussion developed dulness on the right side of the thorax, and the heart-sounds were muffled and circumscribed. Stools fluid and brownish; breathing shallow, voice hoarse. The infant died on the 12th, nine days old. Post-mortem examination was made two hours later. Specimens of the blood and other fluids had previously been carefully drawn in capillary tubes, and these were examined with the utmost care. Sections of the skin, tissues of the joints, etc., and also of the various infarctions in different organs, were examined, with the result of finding numerous monads apparently belonging to the species monas hæmorrhagicum. Eppinger's examination, which was most thorough, leads him to the conclusion that hæmophilia neonatorum is an infectious disease. The original paper is well worth perusal. X.

Case of Perforating Ulcer of the Foot—Cure by Rest.—Petel (*La France Méd.*, 1878, No. 60) says that the following causes have been brought forward in connection with the etiology of malis perforans pedis: 1. nervous; 2, vascular; 3, osseous; 4, mechanical. P. considers the latter as most usual, and gives notes of the case of a man 48 years of age admitted to the hospital with an ulcer of the variety under consideration. This man had suffered several years previously from some injury to the knee-joint, which confined him to bed during several months and caused him to bear more weight in walking upon the right foot than the left. A corn formed on the plantar surface of the great toe of this foot, near the articulation of the first and second phalanges; five years later, in October, 1876, this became painful, and on cutting it a small abscess was opened, which gave relief. When the patient entered the hospital, in April, 1877, the great toe of the right foot was red and tumefied, and showed on its under surface a small ulcer surrounded by a ring of epidermis. A sound introduced into this ulcer passed through the joint, and could be felt under the skin of the dorsal aspect. The bones were not bare. Anæsthesia was limited to the edges of the ulcer. The treatment consisted in absolute rest in bed, with immobility of the joint. The ulcer was simply dressed with dry lint. At the end of three months the patient was discharged, cured. X.

Embroidered Letters for the Diagnosis of Color-Blindness.—Stilling's tables, which are generally employed for the detection of color-blindness, make too severe demands on the sharpness of perception of many persons, and are therefore inconvenient in comparative examinations. In addition, they sometimes display unusual color-tones and are not entirely free from glitter. For these reasons Hermann Cohn (*Berlin. Klin. Wochens.*; from *Cbl. f. Pract. Augenheilk.*, April, 1878), while retaining Stilling's principle, and at the same time using Holmgrem's method, suggests the employment of colored letters upon colored canvas. Cohn uses pale-green, pale-blue, pale-yellow, and light-gray letters on a rose ground, or vice versa, and makes them of zephyr. The size of the bits of canvas should be about four centimetres, that of the letters about two centimetres. The letters should not be prominent. X.

A Contribution to the Study of Bronze Phlegmon.—What Verneuil (*La France Méd.*, 1878, No. 60) calls bronze phlegmon is the affection designated by Velpeau as bronze erysipelas. This phlegmon appears frequently in connection with abrasions, complicated fractures, wounds by projectiles, etc. The persons in whom M. Verneuil has usually observed this affection have been drunkards, diabetics, or wounded persons who have previously suffered some lesion of the liver or kidney. M. Verneuil's conclusions are as follows: 1, bronze phlegmon indicates some lesion of blood or viscera in the patient; 2, it usually points to a fatal termination of the case. X.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 28, 1878.

EDITORIAL.

WITH the present number ends the eighth volume of the *Philadelphia Medical Times*. The past year, notwithstanding the universal business prostration, has been one of growth to the journal, and has served to strengthen the foundations upon which it rests. The editor takes this occasion to thank the numerous contributors to whom chiefly is due the wide reputation achieved by the journal, to ask a continuance of their labors, and to assure them that every effort is made to give their articles as wide a direct and indirect circulation as possible. To them is due the fact that no American journal is quoted more frequently at home and abroad than is the *Philadelphia Medical Times*.

To the subscribers the editor can only repeat the assurance that the quality of the journal will be steadily maintained and improved, and point to the past as the earnest of the future.

LEADING ARTICLES.

SALICYLIC ACID.

SALICYLIC acid was originally introduced into notice as a disinfectant, but before long came into favor as an internal medicament. Already it appears to be established as a most valuable remedy in certain disorders, and its literature has grown to great proportions. So far as we know, no recent article has appeared bringing forward all the data at command and showing the exact condition of our knowledge. To do this is the object of the present leader, which will extend over two numbers of the *Times*,—the first part being devoted to the physiology of the remedy.

When salicylic acid is given to man in doses just sufficient to manifest its presence, symptoms closely resembling cinchonism result. These are fulness of the head, with roaring and buzzing in the ears. After larger doses, to these symptoms are added distress in the head, or positive headache, disturbances of hearing and vision (deafness, amblyopia, partial blindness), with excessive sweating. According to Reiss (*Berliner Klin. Wochenschrift*, 1875, p. 674), decided fall of temperature without alteration of the pulse is also present; but this is denied by other observers. The action upon the system of the acid and of its sodium salts (also ammonium salt, Martenson, *Petersb. Med. Zeitschrift*, 1875, 343) appears to be identical, and, as several cases of poisoning with one or other of these agents have occurred, we are able to trace the toxic symptoms. Along with an intensification of the symptoms already mentioned, there are ptosis, deafness, strabismus, mydriasis, disturbance of respiration, excessive restlessness passing into delirium, slow laboring pulse, olive-green urine, and involuntary evacuations. In some cases the temperature has remained about normal, but in others has approached that of collapse. The respiration seems to be characteristic, it being both quickened and deepened, often sighing. Sweating usually is very free, and the urine early becomes albuminous. Various local evidences of vaso-motor weakness may supervene, such as rapidly appearing bed-sores at points subjected to pressure, and transitory dark-colored maculæ on various parts of the body.* No death certainly† attributable to the acid has, so far as I know, been recorded. In certain cases the mental disturbance has been strangely prolonged, lasting for eight days. In some instances it is cheerful, in others melancholic in type.

When given to dogs by the mouth in large doses, salicylic acid is said to be usually vomited. According to Laborde (*Bull. de Thérap.*, xciii. 276), when from four to five grammes of the salicylate of

* For cases, consult Deutsches Archiv für Klin. Med., xix. 319; Centralblatt für Chirurgie, 1877, p. 273,—40 grains salicylate of sodium taken in twelve hours; London Lancet, 1876, 2, 681; and Berlin. Klin. Wochenschrift, No. 4, 8, 1876.

† Various cases have been recorded of death occurring during administration of the acid. In one, recorded in the Virginia Medical Monthly, June, 1877, the acid may have led to the fatal result: forty-eight grains were taken in four hours. The symptoms were violent vomiting, headache, total unconsciousness, with stertorous breathing. Death occurred forty hours after the first dose. See also Medical and Surgical Reporter, 1878.

sodium are injected into the veins of the dog, the first result is a slight acceleration of the heart's action and of breathing, some efforts at vomiting, quietude, loss of muscular strength, with a decidedly ataxic gait, hebetude, stupor, and finally sleep. When death occurs, it is preceded by dyspnœa and general convulsions. Köhler is probably correct in attributing it to asphyxia.

After these general considerations, we can probably best get an idea of the physiological action of the drug by studying its influence upon the various systems in detail.

In regard to the action of salicylic acid upon the *arterial pressure*, observers are so much at variance as to leave the subject enveloped in mystery. Köhler (*Centralb. f. Med. Wissensch.*, 1876, pp. 163, 195) affirms that when salicylic acid or salicylate of sodium in solution is injected into the jugular vein, there is an immediate fall of blood-pressure, which after a large dose is very pronounced; in a short time the pressure rises to some extent, but not to the normal point, whilst the pulse-waves become excessively high and two or three peaked. As he found that the fall of pressure occurs after section of the depressors, vagi, and the cervical cord, he very naturally concluded that it was due to an action upon the heart itself. In opposition to these results, Prof. Sée (*Bulletin de l'Académie de Médecine*, 1877, p. 697) states that in his experiments there has been no action whatever upon the arterial pressure or on the pulse-rate.

Probably the most thorough study yet made of the action of salicylic acid upon the circulation is that of Danewsky (*Centralb. für Chirurg.*, 1877, p. 84). He found that at first the arterial pressure was increased, partly on account of an increase in the force and energy of the cardiac beat, and partly as the result of irritation of the vaso-motor centre. After large doses the arterial pressure finally fell from cardiac paresis.

It is possible that the variance in the results of Danewsky and Köhler simply depend upon the size of the doses employed, whilst the negative result of Sée was caused by his using the acid by the mouth and testing the blood-pressure before it was absorbed. Future studies can, however, alone settle the question, but the solution suggested seems probable in the light of Köhler's experience (*loc. cit.*), that injections of solutions of the acid into the stomach of dogs and rabbits failed to affect the blood-pressure, although the sodium salt administered in a similar manner did depress the arterial pressure.

According to Sée, the action upon the nervous system of the lower animals is chiefly shown by the violent convulsions that precede death, neither the reflex power of the spinal cord, the general sensibility, nor the conducting power of the nerve-trunks being affected. M. Bochefontaine affirms, however (*Le Progrès Méd.*, 1877, p. 630), that in the frog the drug acts as a paralyzant, destroying the functional power of the spinal centres, whilst according to M. Laborde four grammes of a salicylate will produce in the dog profound cutaneous anæsthesia (*Ibid.*, 609).

In Köhler's experiments upon rabbits, the *respiration* during the injection of the acid or its sodium salt into a jugular vein was decidedly quickened, but after a short time the rate fell to much below the normal. Section of the vagi practised during the period of retardation still further lessened the frequency of the act.

Danewsky states (*loc. cit.*) that the quickening of respiration is due to an irritation of the pulmonary vagi, and not to an influence upon the respiratory centre; also, that after very large doses fatal failure of respiration occurs through a gradual or sometimes sudden depression of the centres.

Especial interest attaches to the action of salicylic acid upon the temperature. In Prof. Sée's experiments upon normal men and upon animals, very large doses (10 grammes for men) had no effect upon the temperature (*loc. cit.*, p. 697). The experiments of Dr. Paul Fürbringer upon rabbits, dogs, and men are in accord with this (*Zur Wirkung des Salicylsaüre*, Jena, 1875). M. Gedl, in twelve seemingly very carefully conducted experiments upon man, in which the doses varied from 46 to 78 grains, found that the effect in three cases was various, in two cases negative, in three a lessening of the daily alterations of temperature, in three a slight lowering of temperature, and in one a fall of 0.8° C. (*Centralblatt f. Med. Wissensch.*, 1876, p. 403). Danewsky states that in normal animals and man the influence of the acid upon temperature is very slight. The evidence just cited seems to show that salicylic acid, like quinine, has, in non-toxic doses, little or no decided action

upon the temperature in health. In fever the case is entirely otherwise. The original article of E. Butt (*Centralblatt für Med. Wissensch.*, 1875) has been followed by a great number of papers, all bearing evidence in the one direction. Many of these articles are abstracted in the *London Medical Record*, 1876, 193, whilst the others are scattered through medical literature.*

Without discussing these in detail, it is sufficient to state that they show that the drug fails in some cases, and should never be used to the exclusion of the cold bath and other similar remedies, but that it seems to be more certain and decided in its effects than is quinine; although this is denied by some who have used the drug.

The first effect of a single antipyretic dose in fever is usually a profuse sweat, which may appear fifteen minutes after the ingestion of the remedy (Ewald, *London Practitioner*, vol. xvi. p. 200). Very shortly after this the temperature begins to fall, and, according to Justi (*Centralblatt für Chirurgie*, 1876, p. 629), the depression reaches its maximum in about six hours. The sweating is profuse and exhausting, amounting, according to Ewald, not rarely to 750 grammes. The perspiration can scarcely be the only factor in the reduction of temperature, as there appears to be no relation between its amount and the degree of the fall, and it usually ceases before the latter reaches its maximum.

The statements in regard to the action on the pulse in fever vary so much as to suggest that when any decided lessening of the cardiac beat does occur, it is dependent upon the fall of temperature. Thus, Garcin (*Jour. de Thérap.*, 1876, p. 25), Oulmont (*Le Progrès Méd.*, 1877, p. 587), Moeli (*Deutsches Archiv*, xvii. p. 592), have all observed the pulse-rate to fall with the fever-heat, whilst L. Schroeder affirms that after moderate doses the pulse is slackened, after large ones quickened, and Ewald and other observers affirm that it is usually not affected. The antipyretic dose employed varies somewhat. Ewald gives as a minimum to the adult 75 grains, repeated in five hours if necessary; Justi, from 90 to 125 grains.

Owing to the insolubility of salicylic acid, the problem of the method of its absorption and of the state in which it circulates in the blood early attracted attention. Salkowski (*Berlin. Klin. Wochens.*, 1875, 297) pointed out that the acid in the blood probably exists in the form of a salicylate of sodium. The salicylate of sodium has little or no antiseptic power; and Prof. Binz, believing that the antipyretic action of a drug is dependent upon its antiseptic influence, asserts (*London Practitioner*, xvi. p. 443) that the acid is liberated in the blood by the carbonic acid formed in the tissues. The only basis for this assertion consists in the fact that, by passing carbonic acid gas through a solution of phosphate, carbonate, and salicylate of sodium, agitating with ether, and separating and evaporating the latter, crystals of salicylic acid are obtained. It is evident that if in the blood changes take place similar to those which occur in this solution, salicylic acid should be yielded to ether when the blood of an animal poisoned with the drug is shaken with it. Feser and Friedeberger found that unless enormous doses of the drug were injected into the blood so as to produce immediate violent convulsions and death, the vital fluid of the poisoned animal yielded nothing to ether. In Köhler's experiment (*Centralblatt für Med. Wissensch.*, 1876, 553), when salicylic acid is dissolved in normal blood no acid is yielded to ether, but when the blood of asphyxia, *i.e.*, blood supersaturated with CO_2, is employed, a very notable amount of the acid is extracted by the ether.

Feser and Friedeberger (*loc. cit.*) have advanced the theory that the salicylic acid circulates in the form of an albuminate. This has received some support from the experiments of Farsky (*Sitzb. d. k. Akad. d. Wissensch.*, lxxiv., Bd. ii.), which seem to show that the acid is capable of forming such a compound.† On the other hand, the theory is contradicted by the results of Fleischer (*Med. Centralblatt*, 1876, 628), who digested albuminous solutions with the acid, and after coagulation by heat found all the acid in the filtrate; and who also treated the blood of poisoned animals in a similar way, and found the

* Consult also Deutsches Archiv für Klin. Med., 1876, xv. 457, 518, 612, xvi. 162, xvii. 294, 314, 607, 692, xviii. 401, 452, 504; Centralblatt für Med. Wissensch., 1876, xci. 198; London Lancet, 1877, ii. 812; London Practitioner, xvi. 200; London Medical Record, 1877; Berlin. Klinische Wochenschrift, 1875, 693; Le Progrès Méd., 1877; Bulletin de l'Académie de Médecine, 1877. For information in regard to its action on pyæmic rabbits, see Fürbringer, *loc. cit.*

† He digested various albuminous substances with salicylic acid, washed them with ether until it would take no more acid, dried, washed with water, and found on analysis salicylic acid largely present in the residue.

salicylic acid only in the serum, the coagulum being free.

Viewing all this evidence together, it seems a probable conclusion that salicylates, when administered internally, enter the vital fluid and circulate there as salicylates, and that salicylic acid itself is probably converted by the alkaline juices of the alimentary canal into a salt, and as such enters the system.

Salicylic acid escapes from the body chiefly through the kidneys. Fürbringer failed to detect it in the fæces, the saliva, or the sweat, but M. Mussy found it in the saliva (*Bull. Thérap.*, xiii. 318), as did also M. Balz; and M. Oulmont detected it in the serosity of a blister. It appears in the urine very soon after its ingestion, but its elimination proceeds slowly. Thus, in a case of exstrophy of the bladder it was detected in the urine dripping from the ureters eight and a half minutes after its ingestion (Balz, *Arch. d. Heilk.*, xviii., S. 60), and it has been found in the urine eight days after the exhibition of the last dose (Byanow, *Centralblatt für Chirurgie*, p. 809, 1877). The latter observer also found it in the urine of a normal man as a salicylate twenty-five minutes after its swallowing. The same authority states that it is excreted partly as salicyluric acid,* partly as a form of salicin, and he believes to some extent as oxalic acid. Urine which had been passed some hours after the ingestion of a dose polarized to the left. Dr. A. E. Stuart (*London Practitioner*, xviii. 425), after so small a dose as nine grains of the acid, saw free, distinct crystals of salicyluric acid in the urine. It is possible that such of the salicylic acid as escapes unchanged from the kidney may, as first excreted, be in the form of a salicylate, but be set free by the phosphoric acid of the urine; at least such would be indicated by the fact that in Balz's case of exstrophy salicylate of sodium appeared in the urine twelve minutes before the free acid. The green color of the urine characteristic of the free use of salicylic acid appears to be due to an increase in the formation of indican (S. Wolfberg, *Deutsch. Archiv f. Klin. Med.*, xv. 403; M. Robin, *London Medical Record*, 1877, 151), or else to pyrocatechine (see *Bull. Acad. Méd.*, 1877, p. 705). The urine itself is often augmented in quantity, but sometimes it is diminished.† It not rarely contains albumen, evidently the product of a local irritation of the kidneys. See reports (*loc. cit.*, p. 705) of a case in which the renal irritation was so severe as to give rise to hæmaturia. In regard to the solids of the urine, the testimony varies somewhat. See (*loc. cit.*) affirms that in gout the uric acid is greatly increased, and that both in health and disease the urea is unaffected. S. Wolfsohn (Inaug. Diss., quoted in *Centralb. f. Med. Wiss.*, 1877, p. 30), on the other hand, determined an increase in the nitrogenous renal elimination. H. C. W.

* Salicyluric acid is a parallel compound to hippuric acid, made by the union of the elements of a glycocol with salicylic acid.

† A curious fact noted by Balz in a case of icterus was the disappearance of biliary coloring-matter from the urine under the influence of the acid (*Centralb. Med. Wiss.*, 1877, 425.)

CORRESPONDENCE.

SECOND ANNUAL MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.

SARATOGA, August 29, 1878.

THE second annual meeting of the American Dermatological Association, which has just closed its sessions, has been in every way a success. A large proportion of the dermatologists of the country were present, and the papers read were for the most part worthy of their authors and of the occasion. The president of the Association, Prof. White, opened the session by a brief address, alluding to the work done in dermatology in this country during the past year, and welcoming the members of the Association. Appended to the president's address, when printed, will be found a complete bibliography of American dermatology for 1877–78, forming a fitting continuation to the bibliography published last year.

The first paper read was by Dr. Atkinson, of Baltimore, on the "Pigmentary Syphiloderm," an affection the existence of which has sometimes been denied. Dr. Atkinson, however, is a believer in the existence of such a disease, and, judging from the opinions expressed during the discussion of the paper, such was the general opinion of the members of the Association, though there seemed a demand for further observation. Dr. Duhring, of Philadelphia, read notes of a "Case of the so-called Xeroderma of Hebra," a very rare affection, showing a simultaneous eruption of pigment deposits and telangeiectases, with patches of atrophy. A paper by Dr. Fox, of New York, "On the Proper Use of the term Acne," gave rise to a lively discussion on the etiology and pathology of the various affections which have rightly or wrongly been included under this term.

One of the more "practical" papers was that of Dr. Hardaway, of St. Louis, on the "Treatment of Hirsuties." The galvanic cautery was the means preferred by Dr. Hardaway, who gave the credit of its introduction to Dr. Michele, an ophthalmologist of St. Louis, who recommended cauterizing the papilla for the permanent removal of "wild hairs" from the eyelids some years since. Dr. Hardaway claimed that his method of removing superfluous hairs was both rapid and certain. He was accustomed, he said, to employ a battery of from eight to twenty cells, the negative pole of which was connected with a needle fastened in a penholder-handle, while the positive electrode was composed of a sponge, applied to the skin in the neighborhood of the part to be operated upon. With the aid of a small lens the needle was inserted into a follicle alongside of the hair, and retained until a whitish froth could be observed issuing from the mouth of the follicle. The hair could then be lifted gently out with forceps. Should it fail to come readily, the operation should be repeated. With twenty elements a second or two was long enough to destroy the papilla; with fewer elements the operation was slower, but less painful. In one case he (Dr. Hardaway) had removed one hundred and sixty hairs in thirty minutes, at one sitting. The size of the needle used was cambric No. 13. Another method, suggested by Dr. Michele, had also been employed successfully by Dr. Hardaway, namely, the injection into the hair follicle by means of a hypodermic syringe of a single drop of the following solution: zinci chlorid., ℥ii; aquæ, ℥iii. The superfluous fluid should be removed at once. This last method, Dr. Hardaway said, could be confidently recommended where electrolysis could not be employed. In the discussion which followed the reading of Dr. Hardaway's paper several other plans of treatment were suggested by different members. Dr. Piffard said he was accustomed to pull out the hair immediately before introducing the needle. The latter should be made of iridoplatinum wire, which could be drawn very fine without losing its stiffness. Dr. Duhring said he had employed a simple glover's needle, rotated in the follicle, with success.

One of the features of the second day's session of the Association was a lecture by Dr. Heitzmann, of New York, on "Epithelium and its Performances." This lecture, which was nearly two hours in delivery, was spoken, without notes, with the utmost fluency and clearness, and was illustrated by numerous drawings sketched impromptu by the lecturer as he spoke. The histology of the epithelial cell, its origin, growth, and relationships with the other elementary tissues of the body, were treated with great fulness. In conclusion, Dr. Heitzmann alluded to the importance of a correct and thorough knowledge of the normal histology of the skin in the study of dermatology, and urged the further and more thorough cultivation of the subject.

Dr. Duhring's second paper, entitled a "Case of Inflammatory Fungoid Neoplasm," gave a very thorough description of a form of disease so rare as to be almost unknown. The description of the case was illustrated by microscopic sections, photographs, water-color drawings, and finally by the patient in person. Other papers were read, by Dr. Piffard, of New York, on "A Case of Gangrænopsis" (the "noma" of other writers); by Dr. R. W. Taylor, of New York, "A Further Contribution to the Study of the Xeroderma of Hebra;" by Dr. Van Harlingen, of Philadelphia, "A Case of Ulcerative Scrofuloderm;" by Dr. F. P. Foster, of New York, "A Case of Scleroderma;" by Dr. Atkinson, of Baltimore, on "The *Botanical* Relations and Life-History of Tricophyton Tonsurans;" and a therapeutic paper was read by Dr. Sherwell, of Brooklyn, on "The Use of Linseed and its Oil as Therapeutic Agents in Diseases of the Skin." Dr. Sherwell recommended the administration of linseed and linseed oil in cases where the effect of ol. morrhuæ is desired, but where, for one reason or another, this cannot be administered. He had used it with great success,—simply eaten as meal, or made up with bran or wheat bread.

The report of the Committee on Classification and Nomenclature, which was handed in on the last morning, was one of the most important events of the meeting. The high standing of the members of that committee, the laborious and thorough manner in which it had studied the subject, and the fact that whatever system of classification and nomenclature shall be finally adopted by the Association will be that of American dermatology in the future, made the acceptance of the report a significant action on the part of the Association.

After the adoption of this report no more business remained for transaction, excepting the retirement of the old and induction of newly-elected officers. These were announced for the ensuing year as follows: president, Prof. Louis A. Duhring, of Philadelphia; vice-presidents, Drs. S. Sherwell, of Brooklyn, and J. Nevins Hyde, of Chicago; secretary, Dr. R. W. Taylor, of New York; treasurer, Dr. J. E. Atkinson, of Baltimore. The retiring president made a few appropriate farewell remarks, presenting his successor as one who needed no introduction where American dermatology is known. Dr. Duhring, in taking the chair, thanked the Association for the honor it had conferred upon him. It should be his aim, he said, to try to bring about the hearty co-operation of all interested in dermatology; and he ventured to express the hope that the meeting of 1879 would bring out still more scientific work, and strengthen ties of friendship already formed among the mem-

bers of the Association. On motion, the meeting then adjourned, to meet next August in New York.

The system of classification and nomenclature adopted by the Association is given below. It will be seen that it is based essentially upon that of Hebra, with certain modifications.

Diseases of the Skin.

Class I.—Disorders of the Glands.
1. *Of the Sweat Glands.*
Hyperidrosis
Miliaria crystallina.
Anidrosis.
Bromidrosis
Chromidrosis.
2. *Of the Sebaceous Glands*
Seborrhœa: *a*, oleosa, *b*, sicca.
Comedo.
Cyst: *a*, milium; *b*, wen.
Molluscum sebaceum.
Diminished secretion.

Class II.—Inflammations.
Exanthemata.
Erythema simplex.
Erythema multiforme: *a*, papulatum; *b*, bullosum; *c*, nodosum.
Urticaria.
Dermatitis:* *a*, traumatica; *b*, venenata; *c*, calorica
Erysipelas.
Furuncle.
Anthrax.
Phlegmona diffusa.
Pustula maligna.
Herpes: *a*, labialis; *b*, progenitalis.
Herpes zoster.
Psoriasis.
Pityriasis rubra.
Lichen: *a*, planus; *b*, ruber.
Eczema: *a*, erythematosum; *b*, papulosum; *c*, vesiculosum; *d*, madidans; *e*, pustulosum; *f*, rubrum; *g*, squamosum.
Prurigo.
Acne.
Impetigo.
Impetigo contagiosa.
Impetigo herpetiformis.
Ecthyma.
Pemphigus.

Class III.—Hemorrhages.
Purpura: *a*, simplex; *b*, hæmorrhagica.

Class IV.—Hypertrophies.
1. *Of Pigment.*
Lentigo.
Chloasma: *a*, locale; *b*, universale.
2. *Of Epidermal and Papillary Layers.*
Keratosis: *a*, pilaris; *b*, senilis.
Callositas.
Clavus.
Cornu cutaneum.
Verruca.
Verruca necrogenica.
Xerosis.
Ichthyosis.
of nail.
Hirsuties.
3. *Of Connective Tissue.*
Sclerodermia.
Sclerema neonatorum.
Morphœa.
Elephantiasis Arabum.
Rosacea: *a*, erythematosa, *b*, hypertrophica.
Framboesia.

Class V.—Atrophies.
1. *Of Pigment.*
Leucoderma.
Albinismus.
Vitiligo.
Cauities.
2. *Of Hair.*
Alopecia.
Alopecia areata.
Alopecia furfuracea.
Atrophia pilorum propria.
3. *Of Nail.*
4. *Of Cutis*
Atrophia senilis.
Atrophia maculosa et striata.

Class VI.—New Growths.
1. *Of Connective Tissue.*
Keloid.
Cicatrix.
Fibroma.
Neuroma.
Xanthoma.
2. *Of Vessels.*
Angioma.
Angioma pigmentosum et atrophicum.
Angioma cavernosum.
Lymphangioma.
3. *Of Granulation Tissue.*
Rhinoscleroma.
Lupus erythematosus.
Lupus vulgaris.
Scrofuloderma.
Syphiloderma: *a*, erythematosum; *b*, papulosum; *c*, pustulosum; *d*, tuberculosum; *e*, gummatosum.
Lepra: *a*, tuberosa; *b*, maculosa; *c*, anæsthetica.
Carcinoma.

Class VII.—Ulcers.

Class VIII.—Neuroses.
Hyperæsthesia: *a*, pruritus; *b*, dermatalgia.
Anæsthesia.

Class IX.—Parasitic Affections.
1. *Vegetable.*
Tinea favosa.
Tinea tricophytina: *a*, circinata; *b*, tonsurans; *c*, sycosis.
Tinea versicolor.
2. *Animal.*
Scabies.
Pediculosis capitis.
Pediculosis corporis.
Pediculosis pubis.

* These indicating affections not properly included under other titles of this class.

REVIEWS AND BOOK NOTICES.

Nervous Diseases: their Description and Treatment. By Allan McLane Hamilton, M.D. With fifty-three Illustrations. Pp. 512. Philadelphia, Henry C. Lea, 1878.

A need has existed for a book on nervous diseases, clear, compact, comprehensive, and up to the times. This has been largely met by Dr. Hamilton's volume. The author, an able and industrious worker and writer, has already become well known to the profession through a small work on Electro-Therapeutics and numerous neurological contributions to American medical periodicals.

His introductory chapter is on (I.) Hints in Regard to Methods of Examination and Study, and (II.) The Instruments used for the Diagnosis and Treatment of Nervous Diseases. The hints include a scheme for the examination of patients, and brief but clear practical directions for making autopsies and preserving and preparing specimens for microscopical investigation. Among the instruments described are the surface thermometer, æsthesiometer, bar æsthesiometer, dynamometer, ophthalmoscope, electro-medical apparatus, rubber muscles, and cauteries. Descriptions and illustrations are given of a new dynamometer, and a new gas cautery, the latter modified by the author from an instrument first described by Dr. J. J. Putnam, of Boston. Both instruments are useful and valuable. A description of massage, and of Swedish movements so far as applicable to the treatment of nervous diseases, might with propriety and advantage have been incorporated in this chapter.

The classification and nomenclature adopted are, in the main, good. Nervous diseases in general are divided into diseases of the cerebral meninges, diseases of the cerebrum and cerebellum, diseases of the spinal meninges, diseases of the spinal cord, bulbar diseases, cerebro-spinal diseases, and diseases of the peripheral nerves. Epilepsy is included under the head of bulbar diseases, which is an arrangement of doubtful wisdom in the present unsettled state of the pathology of this disease. The term "asemasia" (from Greek words meaning an inability to indicate by signs or language), which the author suggests instead of "aphasia," is not, we think, as good as Steinthal and Kussmaul's simpler word "asemia." "Trigeminal" or "trifacial" neuralgia is to be preferred to "facial" neuralgia, the former indicating the nerve affected.

Among long chapters of particular merit we note those on cerebral hemorrhage, aphasia, brain tumors, posterior spinal sclerosis, tetanus, epilepsy, hysteria, chorea, and neuralgia; among shorter chapters, those on auditory vertigo, spinal tumors, antero-spinal

paralysis of infancy, antero-spinal paralysis of adults, and hystero-epilepsy. Diseases of the cerebrum are ably discussed, and are illustrated by about twenty wood-cuts of gross and microscopical lesions, of cerebral topography and localization, brain tumors, etc. The article on auditory vertigo is a good example of much in little. The diagram, modified from Radcliffe, and introduced under spinal tumors to explain the paralysis on the side of the tumor and the anæsthesia and analgesia on the opposite side, is of value; and the chart entitled the "Pathology of Hysteria," modified from Lauder Brunton, is curious and interesting. The discussion of post-paralytic states is instructive. Much attention has been wisely bestowed upon pathology, microscopical appearances receiving full consideration.

The introduction of cases frequently gives a freshness and interest to the pages which they would not otherwise possess. Sometimes, however, they have been presented without good reason, the cases themselves not being of sufficient importance to warrant a detailed account, and not being necessary to the elucidation of the subject. The method of handling subjects is also somewhat irregular: sometimes the author gives symptoms *and* cases, sometimes cases without a formal statement of symptoms. In a model text-book we should have a uniform plan of presentation. Among therapeutic novelties, he recommends the use of tri-nitro-glycerine for the same purpose as amyl nitrite in epilepsy. He says, however, that its reputation is almost enough to intimidate the patient, and, he might have added, more than enough to intimidate the doctor. His views on the employment of galvanism in the treatment of neuritis are directly contrary to our own experience. We have found a weak galvanic current often highly efficient,—better than faradization, which he prefers.

On the whole, after a careful reading of this book, we can commend it to the general practitioner and student as the work most likely to meet their requirements. The specialist also will find much in it to interest and instruct, as it is not wanting in original investigation,—clinical, climatical, histological, and pathological. The author shows a commendable familiarity with German, French, and English literature, and he has also, we are glad to see, not overlooked the American work to be found in text-books, special treatises, and periodicals. On one page (269), for instance, he has seven references to American journals; and the publications of Weir Mitchell, H. C. Wood, Hammond, Da Costa, Clymer, and others, have throughout received the attention which they deserve. The paper, typography, and illustrations are all good. Many of the latter were specially prepared for the work. The style is usually clear and direct. C. K. M.

A Practical Treatise on the Diseases of the Ear, including the Anatomy of the Organ. By D. B. St. John Roosa, M.A., M.D., Professor of Diseases of the Eye and Ear in the University of the City of New York, etc. Fourth Edition; illustrated by Wood Engravings and Chromo-Lithographs. New York, William Wood & Co., 1878. 8vo, pp. 569.

In the number of the *Medical Times* for January 3, 1874, is contained an elaborate review of the first edition of the book before us. The work is intended by the author to be a guide to those who wish to treat diseases of the ear, and the reviewer then said that the intention of the author had been ably carried out. That a fourth edition should be asked for already, shows plainly how much the work is valued, and how thoroughly the medical public agrees with the opinion then expressed.

In the present edition no changes are to be noticed, except in the chapter upon Diseases of the Internal Ear, which has been improved, and many additions have been made in the discussion of this very interesting and difficult subject. We are, it is perhaps somewhat unnecessary to add, unable to see a great deal that is likely to benefit our patients in these additions. In other parts of the ear the surgeon can practise his art with chances of cure equal to those he can hope to have in other parts of the body. The diagnosis of their affections can be made in the most satisfactory and rational manner, and the results of treatment well foreseen. But when we come to the internal ear we are in entire darkness, everything is hidden from us; we can judge, it is true, of the sensibility of the nerve, but beyond that, every material lesion is completely beyond all our present means of investigation. It may be hoped, however, that the wonderful inventions of the past year can be so applied as to enable us to benefit sufferers now altogether beyond our reach. Until the present time we could only help to condense the waves of sound, and to have them conveyed without obstruction through the external ear, and maybe to clean the outside curtain that hangs across the little echo-cave, and leave it free to be blown in and out as each air-wave beats against it. The tapping-bones, once separated, we can never put together again, nor ever reach the inside curtain, where the sounds are condensed again and thrown through the liquids of the labyrinth, "where three thousand tuned nerves take up each its own according note and bear them to the brain."

By these recent inventions, which inspire us with hope,—all coming from the simple and accidental expedient of interrupting the electrical circuit with a finely-divided conducting material,—minute sounds may be magnified to the ear as minute objects are magnified by

lenses to the eye. We are told that "a touch of the finger on the vibrating plate of the telephone was conducted to the speaking end in volume of vibration like the rustle of a forest; the stroking of a camel-hair brush on a card was magnified into the sound of a loud whisper; and when a fly happened to walk over the plate, the tramp of its feet was most distinctly caught, like that of some six-legged horse trotting, and it was, moreover, heard to trumpet from its raised proboscis like an elephant in an Indian jungle."

Of the two special senses that preside over man's intellectual development, undoubtedly the hearing holds a higher position than the sight. A mute Milton can never be other than inglorious; the song of the blind shall sound for countless ages. In the French language, indeed, *entendre* is *to hear*, and *entendement* means the *understanding*. We have far more to learn in acoustics than in optics. Professor Morton stated a few days ago, and no explanation of the phenomenon was satisfactory, that in experimenting with a powerful steam fog-whistle it could be heard ten miles in one direction and yet be entirely inaudible in another direction at the distance of only a quarter of a mile. We have also more to learn of the anatomy, the physiology, and the pathology of the organ of hearing than of the organ of seeing.

There may be reason for believing that there exists now a sufficiency of good oculists, but none for believing this to be so as regards the more important specialty so well treated of in the work before us. W. F. A.

A Clinical History of the Medical and Surgical Diseases of Women. By Robert Barnes, M.D. Second American from the second English Edition. Henry C. Lea.

It is with pleasure that we announce a new edition of this book of established reputation. Many new illustrations have been added, the text carefully revised, and a new chapter written on the Relations of Bladder and Bowel Disorder to Uterine Complaints.

Antagonisms of Therapeutic Agents. By Dr. J. Milner Fothergill. Henry C. Lea.

This brochure, which received the Fothergillian gold medal of the Medical Society of London for 1878, is an excellent résumé of the subject, in its author's best style. The chief value of it, as of much of Dr. Fothergill's writing, lies in the rare sagacity with which the results of the experimentalists are applied to the needs of clinical medicine. The most novel and valuable part of the book is that devoted to the consideration of the respiratory use of strychnia. Our readers will, no doubt, call to mind the valuable discussion on this subject in one of the doctor's "London Letters," and we only hope that they will, as soon as may be, test and report through the columns of the *Times*. We cannot abstract the brochure before us, but must be content with congratulating the Fothergillian medal on having so worthy a recipient.

GLEANINGS FROM EXCHANGES.

Prevention of Puerperal Fever (*The Boston Medical and Surgical Journal*, July 11, 1878).—Dr. W. L. Richardson, in his report on recent progress in obstetrics, alluding to the subject of the prevention of puerperal fever, quotes the following authorities:

"In 1870 Dr. Bischoff (Basle) advised that as soon as labor began a bath should be taken by the patient, and that during the whole of the labor the vagina should be washed out every two hours with a solution (two per cent.) of carbolic acid. The medical attendant should be careful to wash his hands in a solution (three per cent.) of carbolic acid, and should always anoint his finger with carbolized oil before making a vaginal examination. In cases where the fœtus was dead and decomposed, or where the hand had to be passed within the uterine cavity, the uterus should be washed out with a solution (three per cent.) of carbolic acid. During the convalescence frequent carbolized injections should be made into the vagina and uterus for thirteen days. Any visible wounds found in the vagina should be touched with a carbolic (ten per cent.) solution immediately after the termination of the labor, and a pad of wadding soaked in carbolized oil should be placed in the vagina and constantly renewed. This method has resulted admirably in greatly reducing the mortality and the numerous forms of mild puerperal diseases which were formerly of so frequent occurrence.

Professor Zweifel (Erlangen) advises, however, a method of procedure much more simple, and one which seems to yield equally favorable results. All vaginal examinations during pregnancy are made with the hand, which has first been anointed with carbolized oil; the vagina is subsequently washed out with a carbolic solution. All visible rents in the vaginal tract are touched with a mixture of salicylic acid and starch (one part to five). Fehling suggests that in addition to this the vagina should be syringed out several times a day with solutions (one-eighth to one-tenth per cent.) of salicylic acid.

A Simple Method of Reducing Prolapsus of the Rectum (*The Hospital Gazette*, July 11, 1878).—Dr. J. C. Davis gives the following directions for reducing prolapsus of the rectum:

"If the patient be a child, place it on its back, flex the thighs and legs at a right angle to the body; let the nurse or an assistant hold them in this position; wipe the mucus or

other discharge from the prolapsed part; then take an old handkerchief, piece of soft linen, or cotton rag, place it loosely over the index finger and introduce it slowly into the rectum; the mucous membrane will adhere to the rag, and the part last descending will be the first to repass the sphincter. Carry the finger the full length up the rectum; then with two fingers of the left hand (one on each side) sustain the gut while withdrawing the finger. To remove the rag, keep up the counter-pressure with the fingers of the left hand, and pull gently, first on one side, then on the other of the handkerchief or rag, and in this way remove it from the rectum. If the patient be other than a child, place him in the "Sims position," and the same procedure will accomplish the object in view.

"The subsequent treatment, surgical or otherwise, will depend upon the causes which have produced the disorder.

"In behalf of this method, I would say that it has proved eminently successful in my hands for more than a score of years. Its claims are simplicity, facility, and rationality; there is no squeezing or bruising of the parts, hence little or no pain, unless the gut be inflamed. By the old method the manipulations of the surgeon cause the sphincter to contract sometimes forcibly, thereby making the reduction of the prolapsed gut more difficult.

"By the foregoing method the surgeon *unties* the knot; by the old, he forces it through a more or less tightly constricted sphincter."

CONTRACTION OF THE FINGERS (*The British Medical Journal*, June 29, 1878).—Mr. William Adams thus describes the operation and treatment which he now practises in cases of Dupuytren's contraction:

1. The subcutaneous division of all the contracted bands of fascia which can be felt; the bands to be divided by several punctures, with the smallest tenotomy-knife passed under the skin and cutting from above downwards, a pledget of lint being at once placed over each puncture and retained in position by a strip of plaster.

2. Immediate extension to the full extent required for the complete straightening of the fingers, where this is possible, and the application of a retentive well-padded metal splint from the wrist along the palm of the hand and the fingers; the fingers and hand to be bandaged to the splint.

3. The bandage not to be removed until the fourth day, when the lint and plaster may also be taken off, as the cutaneous punctures are always found to be healed by the fourth day. The retentive metal splint to be re-applied, and the hand and fingers bandaged to it.

4. Extension to be kept up by the splint worn continuously night and day for two or three weeks; but the splint and bandage to be changed every two or three days. After this the extension splint is to be worn at night only for an additional three or four weeks, free motion being encouraged during the day.

TREATMENT OF GLANDULAR SORE THROAT (*The British Medical Journal*, July 6, 1878).—Dr. James Sawyer writes as follows of his treatment of this disease: Glandular sore throat, by which is meant catarrhal congestion or inflammation in and around the glandulæ of the mucous membrane of the pharynx and larynx, is a very tedious and troublesome affection. It has been known as dysphonia clericorum; it is, in fact, the chronic sore throat to which persons are liable who use their voices extensively, especially in large rooms or in the open air. Dr. Sawyer desires to draw attention to the usefulness of the topical application of borax in its treatment. He orders a saturated aqueous solution, which the patient applies to his throat by the aid of Corbyn's throat-spray. The spray should be employed for several minutes thrice or more frequently daily, and midway between meals. If the larynx be much implicated, the patient should inspire deeply while the spray is playing upon his throat. This very simple method of treatment has lately been found to be of striking service. The cure may be expedited by the application of astringent solutions to the pharynx and larynx by means of suitable brushes. When there is much secretion, extract of eucalyptus is a good local astringent, which may be used in the form of lozenge.

DIALYZED IRON.—Prof. Gowers (*London Practitioner*, July, 1878, p. 1) has, with the aid of the hæmacytometer, counted the red corpuscles of patients before, and at various periods after, taking this preparation. In the first case, an anæmic woman, the red corpuscles rose from 46 to 102 per cent. of the normal, in 34 days. In the second case, an extremely anæmic girl, the red corpuscles, before treatment, amounted to 26 per cent. of the normal, and after taking iron for 63 days to 92 per cent. Under the influence of the catamenia the number fell to 60 per cent., then rose to 70 per cent. The iron was now discontinued for 28 days, and at the end of that time the number of corpuscles had fallen to 56 per cent. The iron was resumed, and 7 days after the corpuscles amounted to 70 per cent. of the normal.

QUININE IN CHRONIC IRRITATION OF THE BLADDER (*The Lancet*, June 1, 1878).—Mr. J. Knowsley Thornton reports two cases of patients who, during convalescence after ovariotomy, were troubled with feverishness with constant and severe dysuria, and whose urine contained much mucus and was ammoniacal and offensive. For several days the bladder had been emptied and then thoroughly washed out with a tepid carbolic lotion, 1 to 100, four ounces being introduced and withdrawn until a pint had been used; two ounces being left in the bladder. This had not produced the slightest effect. Three

ounces of a solution of quinine, two grains to the ounce of water, with a few drops of dilute sulphuric acid to dissolve it, were then introduced and allowed to remain in a few seconds; then two ounces were withdrawn, the other ounce being left in the bladder, the patient having instructions not to pass water for an hour. The first patient had some smarting and forcing, which lasted for twenty minutes; the second no inconvenience whatever. In twenty-four hours it was noted as to them both, "Urine acid, much improved in general appearance; no mucus; odor normal." Two days later, "No more trouble; urine normal." A few weeks later another case of the same description occurred, and was treated in the same manner, with the same result.

Dangers in the Use of Tinned Fruits (*The Lancet*, July 13, 1878).—Mr. W. N. Hartley calls attention to the dangers of using canned fruits when the tin in which they are contained has become at all corroded. He says, "Having lately had occasion to examine some liquid vomited during sudden sickness, with the view of detecting a poison of an unknown nature, either organic or metallic, I submitted it to a very complete chemical analysis. The absence of any poisonous alkaloid was proved by the process of Stas. Arsenic, antimony, and mercury were proved to be absent as well by Reinsch's process as by subsequent operations. A small quantity of a brown metallic sulphide was obtained, soluble in sulphide of ammonium, and reprecipitable from this solution by acids. The actual amount of precipitate was inconsiderable, only sufficient in fact to cover a very small filter. It was impossible to attempt any quantitative estimation of this substance, but it was decided to put its identity beyond doubt. This was done by reducing the sulphide to the metallic state by means of the blow-pipe. The minute globules of metal, which could not have weighed more than a few thousandths of a grain, possessed the color, hardness, malleability, and other properties of metallic tin. The minute quantity found was that only which had escaped absorption by the system, and in all probability much less than the whole amount taken. Having no further information concerning the case, I cannot say decidedly what was the source of this metal, but I was previously aware that it is occasionally present in the juice of fruit preserved in tins,—as, for instance, peaches."

According to the last annual statement of the treasurer, Mr. Husband, the annual income of the British Medical Association is £11,000; the unexpended balance in bank £2000, besides £3000 invested in British consols. No longer ago than the close of 1871 the Association was in debt about £2000. The number of members "in full subscription" is 7500. The journal published by the Society is in a very flourishing condition, and has removed to more commodious quarters in the Strand. The question of the admission of "lady members" was discussed at length at the recent meeting, and, in spite of a powerful speech from Mrs. Garrett Anderson, the following by-law was adopted by a very large majority: "No female shall be eligible for election as a member of the Association." We believe there are two "lady members" now members,—Mrs. Garrett Anderson and Mrs. Hoggan.

The British Medical Association report references to one thousand seven hundred and forty-three reported cases of hydrophobia, mostly furnished by the United States Surgeon-General's Office.

NOTES AND QUERIES.

Shadyside, Montgomery Co., Sept. 16, 1878.

Dear Doctor,—In the article on "Chloral Hydrate and Oxide of Zinc in Acute Intestinal Diseases of Childhood," there are two typographical errors which it would be well to correct. The baths, as I stated it, should be "never at a lower temperature than 30° to 35°" (*not* 80° to 85°); and in the recipe for oxide of zinc it should be "Aq. cinnam., q. v. ut ft. ℥ij" (*not* ℥j).

Very respectfully yours,
James L. Tyson.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 8 TO SEPTEMBER 21, 1878.

Greenleaf, C. R., Major and Surgeon.—On return to winter-quarters of troops now at camp on the Marias River, assigned to duty as Post-Surgeon at Fort Shaw, Mont. T. S. O. 108, Department of Dakota, September 16, 1878.

Horton, S. M., Major and Surgeon.—Granted leave of absence for twenty days on Surgeon's certificate of disability. S. O. 168, Department of the East, September 17, 1878.

Hubbard, V. B., Captain and Assistant-Surgeon.—Assigned to duty at Angel Island, Cal. S. O. 138, Division of the Pacific and Department of California, September 10, 1878.

Vickery, R. S., Captain and Assistant-Surgeon.—Assigned to duty as Post-Surgeon at Plattsburg Barracks, N. Y. S. O. 164, Department of the East, September 11, 1878.

Fitzgerald, J. A., Captain and Assistant-Surgeon.—When relieved, to comply with S. O. 176, c. s., A. G. O., in his case. S. O. 108, Department of the Columbia, September 2, 1878.

Hall, Wm. R., First Lieutenant and Assistant-Surgeon.—Assigned to duty at Fort Boisé, Idaho, relieving Assistant-Surgeon Fitzgerald. S. O. 108, c. s., Department of the Columbia.

Cunningham, T. A., First Lieutenant and Assistant-Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 106, Department of Dakota, September 10, 1878.

La Garde, L. A., First Lieutenant and Assistant-Surgeon.—Assigned to duty at Fort Columbus, N. Y. H. S. O. 160, Department of the East, September 6, 1878.

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Very truly yours, W. W. KEEN, M.D.

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A heaping teaspoonful, containing ONE GRAIN of Citrate of Caffeine, should be given in sick headache, every hour or two before and during the paroxysms.

Messrs. KEASBEY & MATTISON; PHILADELPHIA, September 27, 1877.

Gentlemen,—It gives me pleasure to add my testimony in regard to your preparations, which I have used for a long time; they are thoroughly reliable. Truly yours, THOMAS G. MORTON, M.D.

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W. B. ATKINSON, M.D., *Secretary American Medical Association.*

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[*Extract from letter of* Dr. Harvey L. Byrd, *of Baltimore, late Professor of Diseases of Women and Children in the College of Physicians and Surgeons of Maryland, dated Baltimore, September 21, 1877.*]

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